

DDMS



MISSION BRIEFING



OVERVIEW



- **Authority**
- **Organization**
- **Abort Options**
- **Command and Control**
- **Training and Exercises**



AUTHORITY



- **National Aeronautics and Space Act of 1958 - "NASA"**
- **DDMS Charter**
 - DEPSECDEF Memo—Oct 96
 - CJCS Memo—Dec 96
- **CJCSI 3440.01--DOD Shuttle Contingency Recovery Policies and Procedures** (25 Apr 97)



NATIONAL AERONAUTICS AND SPACE ACT OF 1958

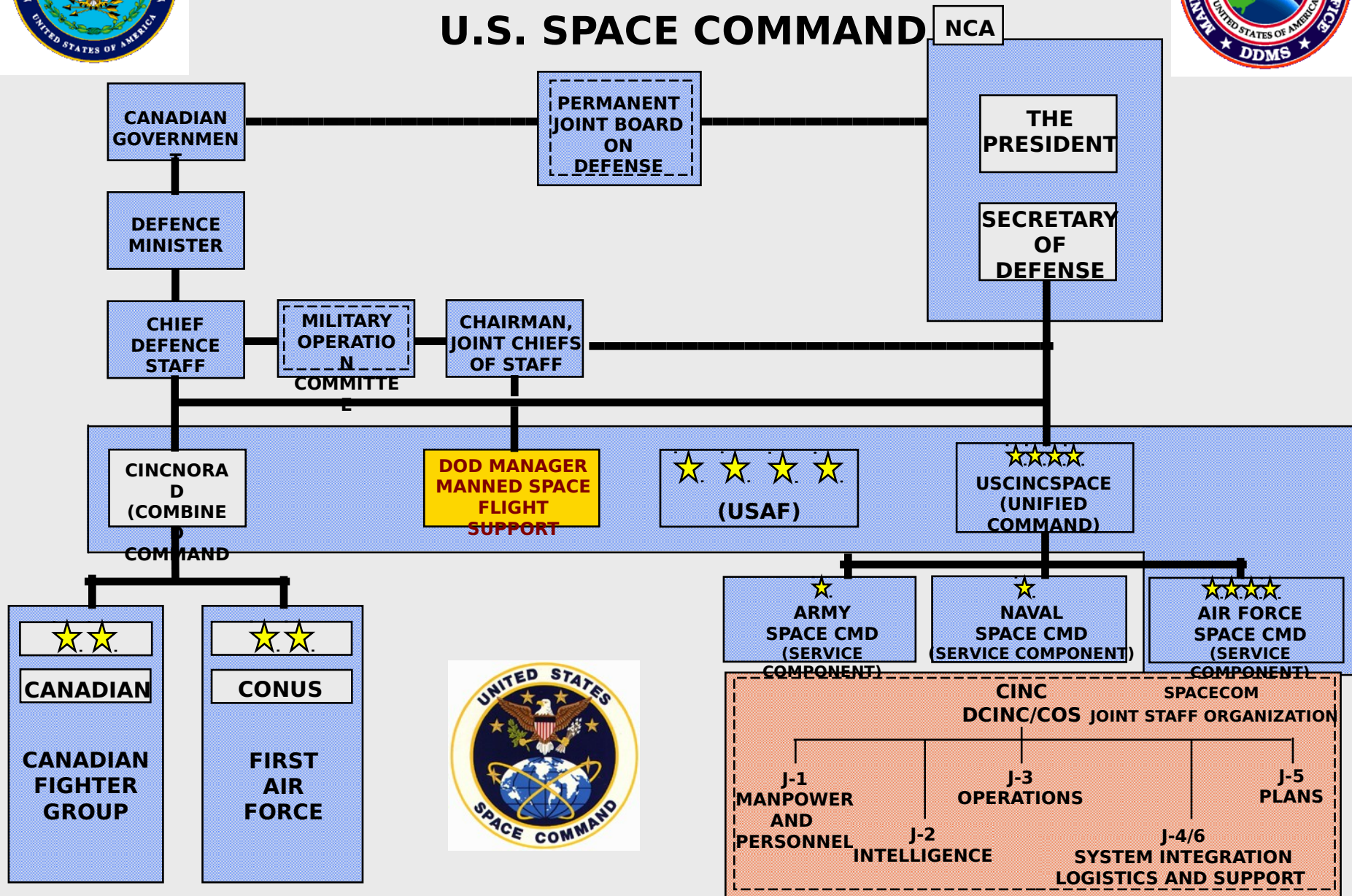


- NASA is authorized to use the assets and resources of the services...**
- with their consent
 - with full cooperation of all agencies/ departments
 - with or without reimbursement





COMMAND RELATIONSHIPS U.S. SPACE COMMAND





CJCSI 3440.01

DOD Shuttle Contingency Policies & Procedures



- **DOD will assist astronauts in the event of accident, distress, or emergency landing “The DDMS Program”**
- **DOD Manager (USCINCSpace) is focal point for support and exercises tactical control of DOD support forces at predesignated abort sites**
- **Theater CINCs execute this instruction when requested by the DOD Manager or CJCS**



DDMS HISTORY



1959

Project Mercury

1963

Project Gemini

1968

Project Apollo

1977 - Present

Space Shuttle

Program



CHARTERED MANNED SPACE FLIGHT SUPPORT OPS



- **Rescue/recovery of astronauts**
- **Landing site support**
- **Medical operations (STS / Mir)**
- **Public Affairs**
- **Contingency communications**
- **Airlift/Sealift and salvage**
- **Orbiter ferry flight**
- **Other services as requested**



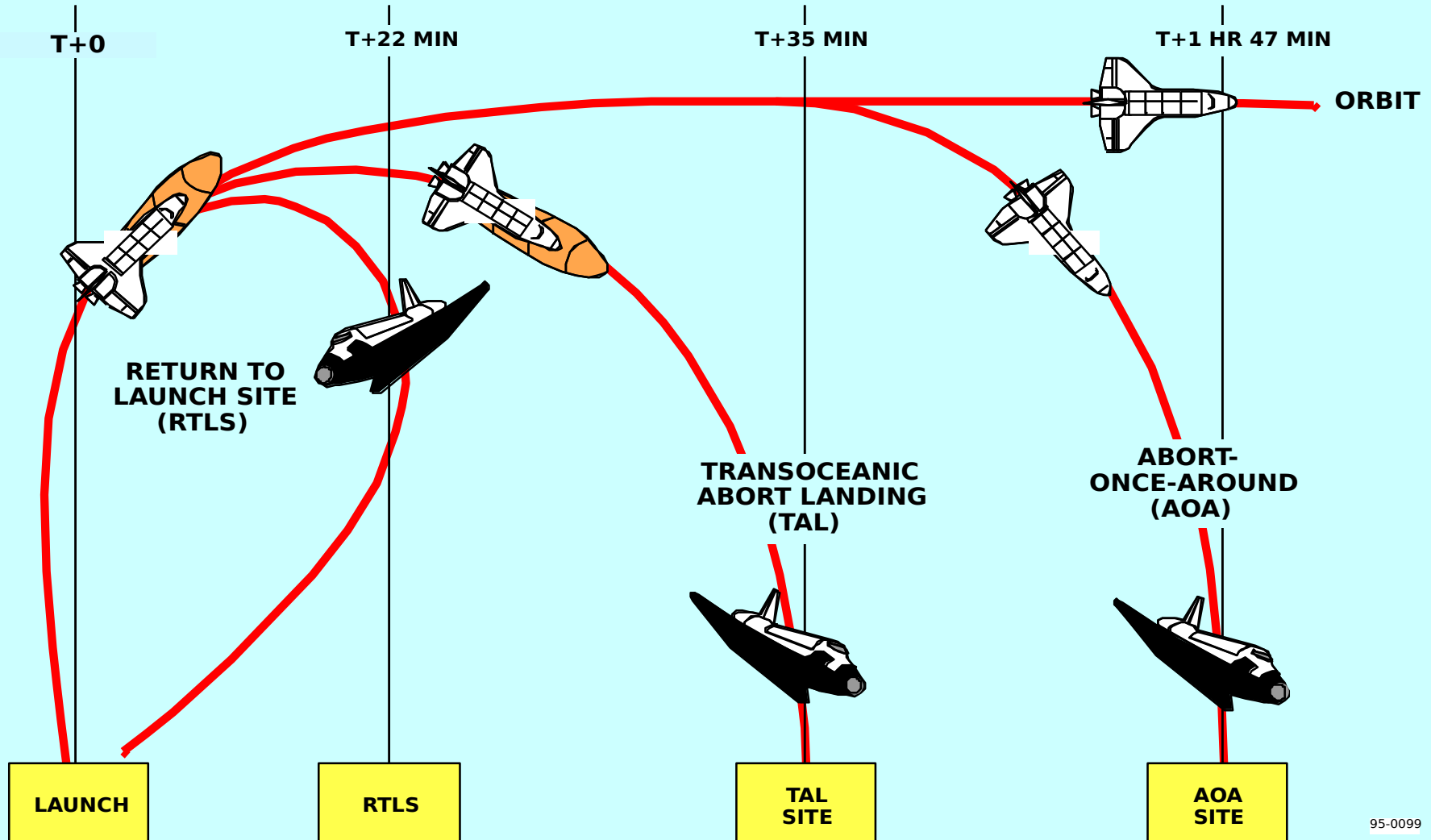
DDMS Medical Operations



- **Provide equal intensive medical care to each astronaut**
- **Maximize use of DOD sources for medical care**
- **Use medical evacuation by the most expedient mode available**
 - Usually helicopter support



ASCENT ABORT PROFILES



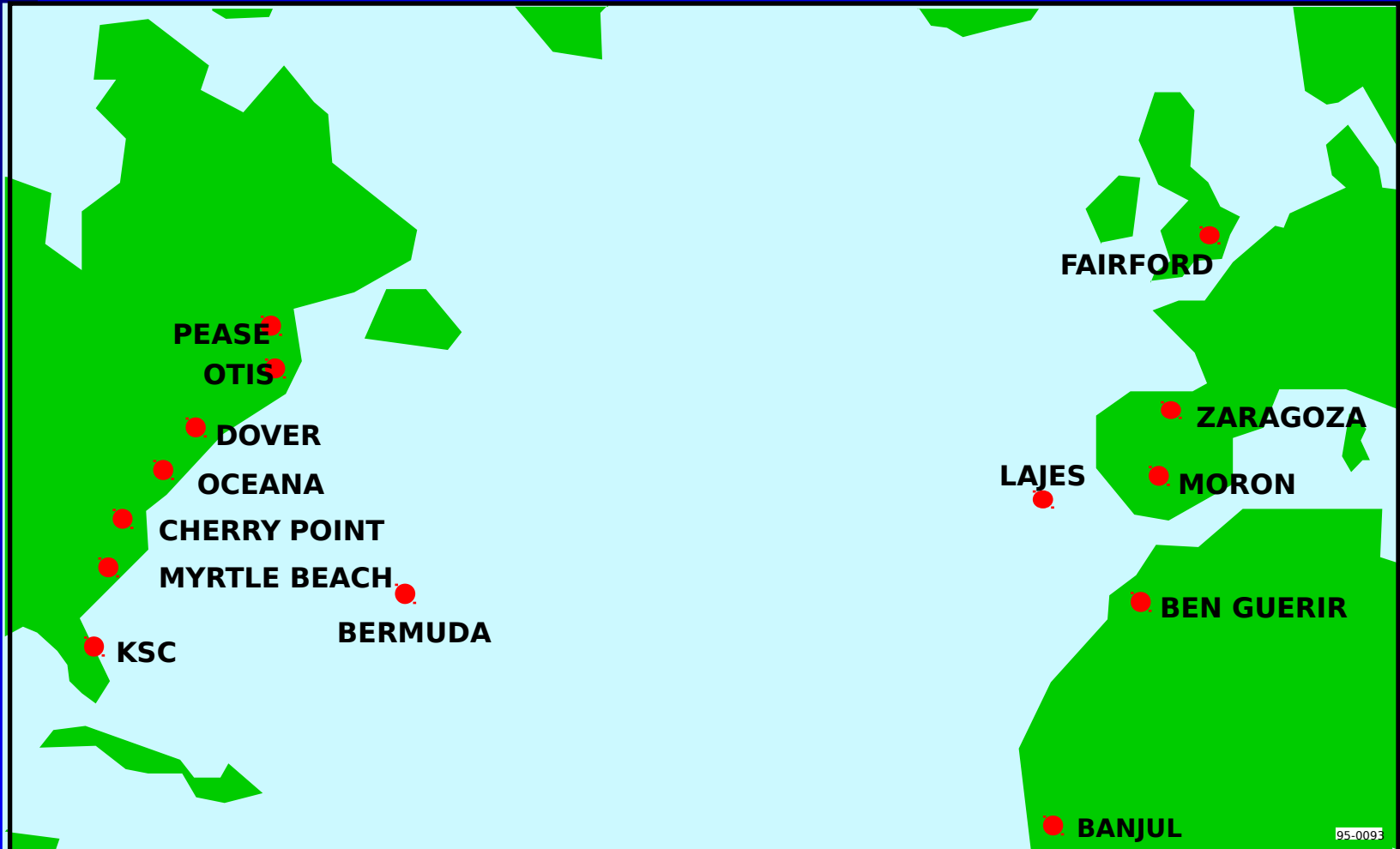


DOD CONUS RESCUE POSTURE





LAUNCH ABORT LANDING SITES



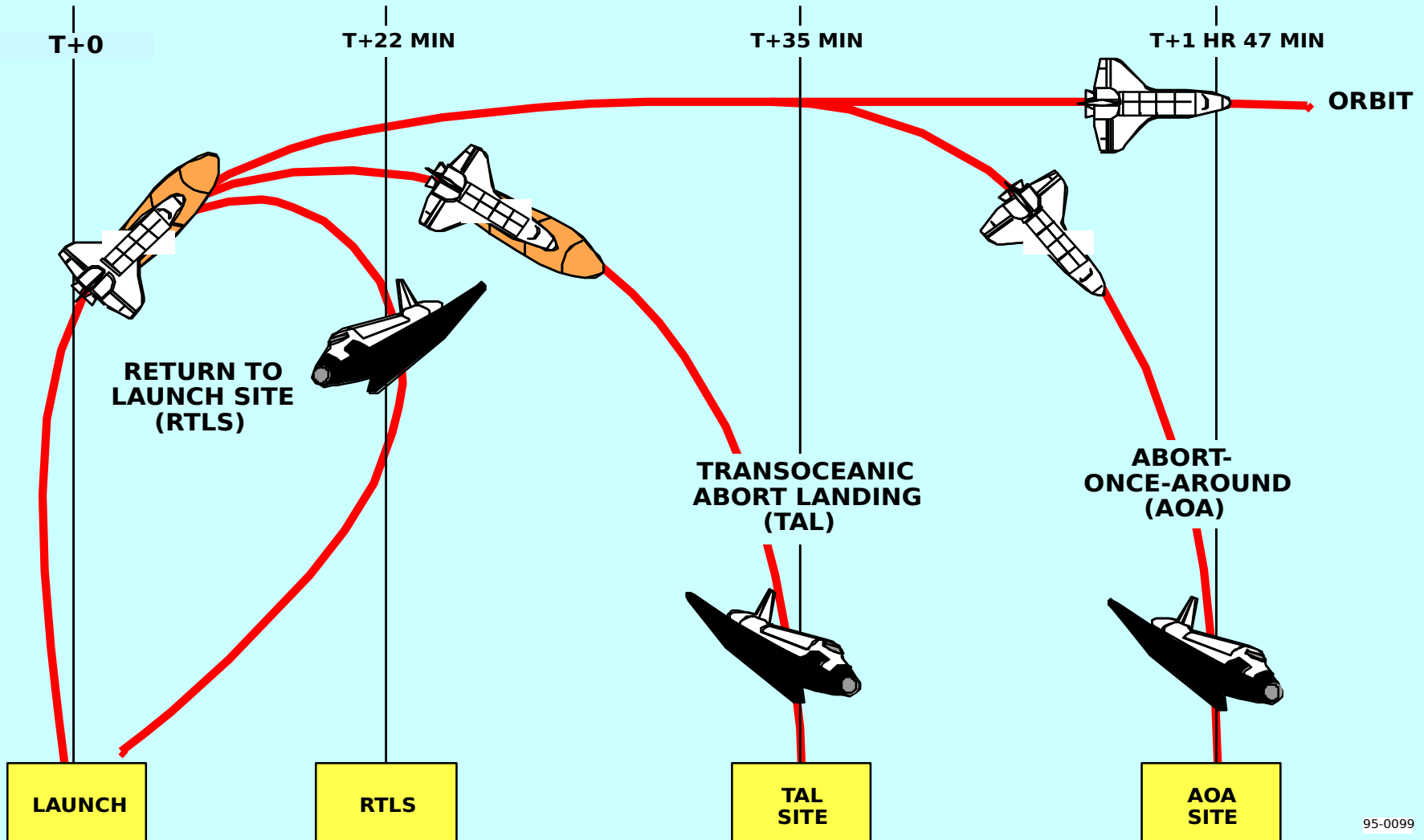


Contingency Bailout Areas





ASCENT ABORT PROFILES





SPACE SHUTTLE EMERGENCY LANDING SITES





TRANSOCEANIC ABORT LANDING (TAL) SITE



- **C-130 theater airlift**
 - SAR/MEDEVAC/airlift/crew return
 - 9 PJs / 3 Zodiacs & 2 MA-2 kits per aircraft
- **C-12/C-21 USAFE/USNAVEUR**
 - Astronaut observer
 - Weather reconnaissance flights
 - Landing aid checks
- **Medical support**
 - Two flight surgeons/physicians per TAL
 - PJ's/Med Techs
 - Med equipment/blood supply/records
- **Weather support**
 - Forecasters/Observers
 - Weather balloon system (RATS)



TAL (Continued)



- **DOD Deployed Forces Commander (DDMS)**
- **DOD Contingency Response Force (DOD bases)**
 - Fire/crash rescue (all TALs)
 - Disaster preparedness
 - Security
 - Ambulances
- **NASA team**
 - Astronaut
 - Ground Operations Manager (GOM)
 - United Space Alliance (USA) Operations Team



ON-ORBIT DOD LANDING SITE SUPPORT



- **Kennedy Space Center, Edwards AFB,
White Sands Space Harbor
(Holloman AFB)**
 - **Augmented emergency landing sites (ALS)**
 - **DOD forces scheduled as necessary**
 - **Helicopters**
 - **Fire/Crash/Rescue**
 - **Convoy**
 - **Medical**



END OF MISSION LANDING SITE SUPPORT



- **Edwards AFB/White Sands Space Harbor/Kennedy Space Center**
- **DOD contingency response force (EDW, WSSH)**
- **Helo support**
- **(EDW, WSSH, KSC)**
- **Medical support**
- **(EDW, WSSH, KSC)**





CONTINGENCY LANDING SUPPORT



- **NASA Response Teams (RRT/MIT)**
- **Astronaut crew return mission**
- **Turnaround operations**
 - **Airlift/Sealift**
 - **Bare Base Support**
 - **Ferry Flight Operations**





COMMAND AND CONTROL

- **DOD Manager exercises TACON**
 - Through the DOD Support Operations Center (SOC)
- **Commanders retain OPCON**
- **NASA provides technical assistance**

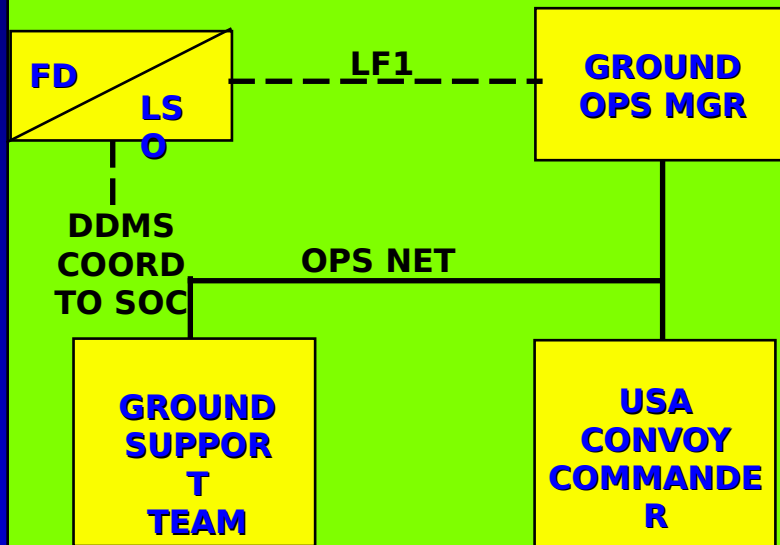


TAL Contingency Response

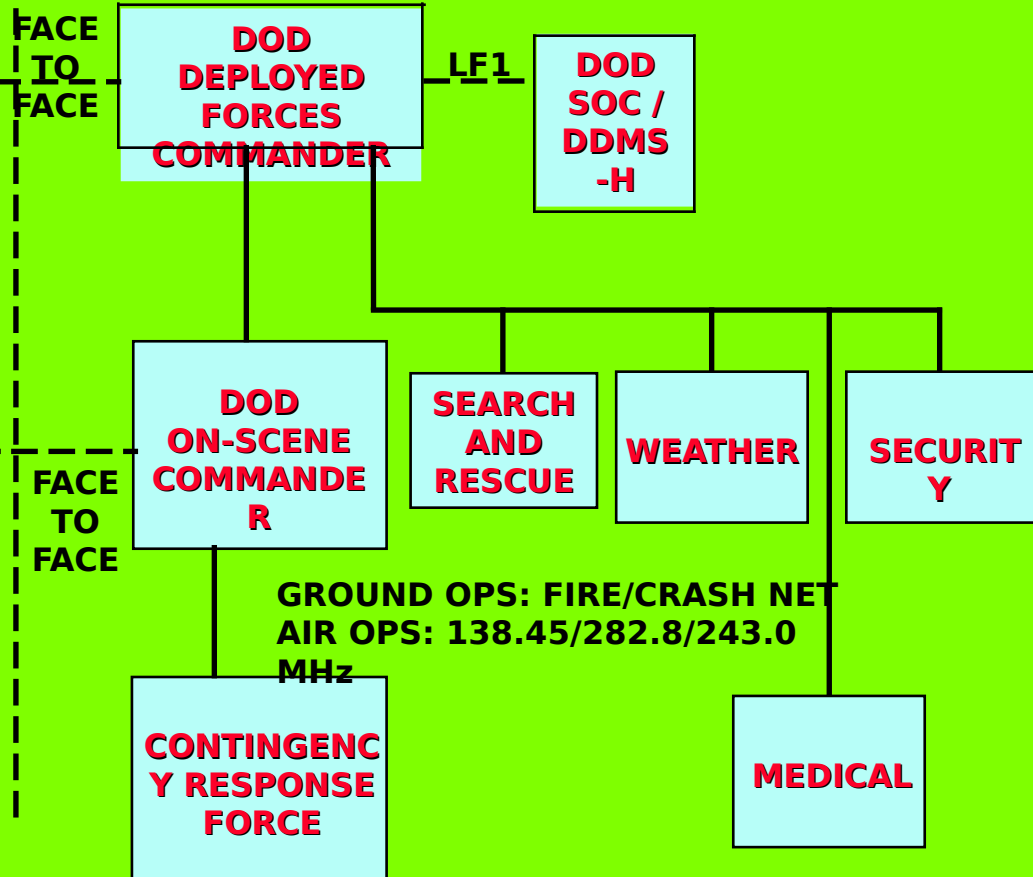


Team (Zaragoza Air Base)

NASA ORGANIZATION



DOD ORGANIZATION





DOD WORLDWIDE TRAINING



- **Nine CONUS DOD sites**
- **Six Pacific/Indian Ocean sites**
- **Five European sites**
- **One South Atlantic site**



DDMS OPERATIONAL TRAINING



- **Rescue personnel capabilities (PJ's)**
- **Rescue equipment**
- **Mode I - VIII contingency plans & procedures**
- **Convoy procedures**
- **Communications equipment**



DDMS OPERATIONAL TRAINING

Continued



- **On-scene commander**
- **Orbiter familiarization**
- **Shuttle fire/rescue procedures**
- **Shuttle landing exercises**



DDMS OPERATIONAL TRAINING

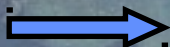
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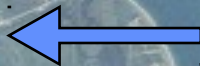
- **Advanced cardiac life support (ACLS)**
- **Advanced trauma life support (ATLS)**
- **Emergency suit removal techniques**
- **Shuttle toxicology**
- **Space medicine review**

KSC Area of Operations

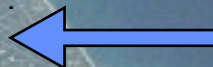
SLF



LP 39-A



LP 39-B



Contingency Modes I-IV

On-Pad Rescues





DDMS MEDEVAC Aircraft





DDMS MEDEVAC Aircraft





DDMS Medical Equipment





DDMS Communication Equipment





KSC Bunker Self-Evacuation





KSC Launch Pad Bunker





KSC Suit Room



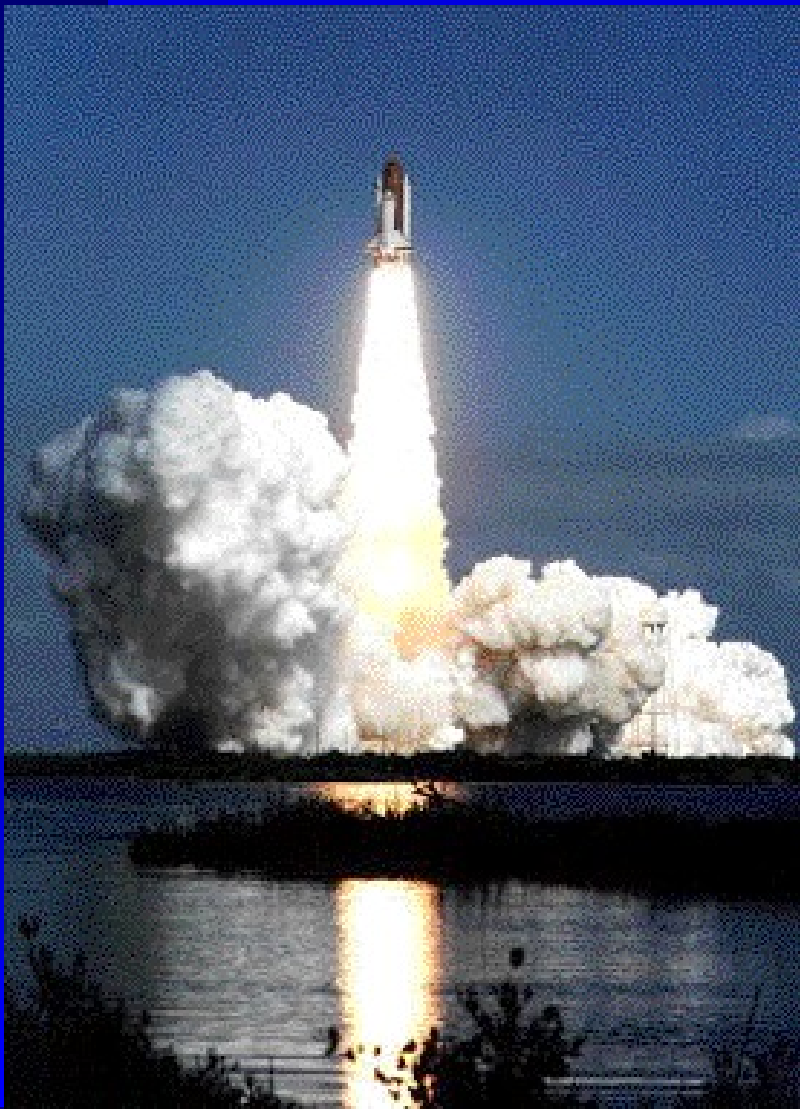


Scheduled DDMS Exercises

- **Contingency Modes**
 - Pad MEDEVAC (Modes I-IV)
 - On-runway response (Modes V-VI)
 - Off-runway response (Mode VII)
 - Astronaut bailout (Mode VIII)
- **Locations**
 - Kennedy Space Center
 - Edwards AFB
 - White Sands Space Harbor (Holloman AFB)
 - East Coast Abort Landing Sites (ECAL)
 - TALs
- **Internal Communication Procedures**



SUMMARY



DDMS is the single DOD agency charged to coordinate and control support for Manned Space Flight contingencies



?? Questions ??

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